

CLAIMS

No amendments are being made to the claims. However, they are presented here for the convenience of the Examiner.

1. (Original) A computer-implemented method for dynamically allocating a device to a bus, the method comprising:
monitoring activity on a plurality of buses to determine an imbalance;
responsive to a determined imbalance:
 automatically selecting a device from a plurality of devices to move
 from a first of the plurality of buses to a second of the plurality
 of buses; and
 configuring the device to communicate via the second bus.
2. (Original) The computer-implemented method of claim 1 wherein the determined imbalance includes greater activity on the first bus than on the second bus.
3. (Original) The computer-implemented method of claim 1 wherein the determined imbalance includes greater power consumption by the first bus than the second bus.
4. (Original) The method of claim 1 wherein automatically selecting the device to move from the first bus to the second bus further comprises:
 determining which device of the plurality of devices is generating a least
 amount of traffic on the bus; and
 selecting the determined device.
5. (Original) The method of claim 1 wherein automatically selecting the device

to move from the first bus to the second bus further comprises:

determining a ranking for each device according to an amount of traffic on the bus generated by the device; and
selecting according to the rankings a device to move from the first bus to the second bus to reduce the imbalance.

6. (Original) A computer-implemented method for dynamically allocating a device to a bus, the method comprising:

receiving a threshold imbalance level;
monitoring activity on a plurality of buses to determine an imbalance;
responsive to the determined imbalance exceeding the threshold imbalance level:
automatically selecting a device to move from a first of the plurality of buses to a second of the plurality of buses; and
configuring the device to communicate via the second bus.

7. (Original) The method of claim 6 wherein the threshold imbalance level is associated with a hardware profile.

8. (Original) The method of claim 7 wherein the hardware profile is a portable computer profile.

9. (Original) The method of claim 7 wherein the hardware profile is a desktop computer profile.

10. (Original) A computer-implemented method for dynamically allocating a device to a bus, the method comprising:

determining a performance preference;

responsive to the performance preference indicating a preference for decreased power usage:

automatically selecting a device to move from a first of a plurality of buses to a second of the plurality of buses;

configuring the device to communicate via the second bus;

responsive to the performance preference indicating a preference for increased efficiency:

automatically selecting a device to move from the second of the plurality of buses to the first of the plurality of buses; and

configuring the device to communicate via the first bus;

11. (Original) The computer-implemented method of claim 10 further comprising:

responsive to the performance preference indicating a preference for decreased power usage:

configuring each device on the first bus to communicate via the second bus; and

causing the first bus to become idle.

12. (Original) A computer bus management system comprising:

- a first bus source for transmitting data to a device;
- a second bus source for transmitting information to a device;
- a first bus, coupled to the first bus source, for providing a communication pathway for the data transmitted by the first bus source;
- a second bus, coupled to the second bus source, for providing a communication pathway for the data transmitted by the second bus source;
- a switch, coupled to the first bus and the second bus and to a device, for connecting one of the buses to the device; and
- bus select logic, coupled to the switch, for causing the switch to connect one of the buses to a device in response to performance criteria.